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UNITED STATES PATENT AND TRADEMARK OFFICE

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09/687,543	10/13/2000	Masayuki Ohbayashi	7217/62641	8898

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EXAMINER
LEMMA, SAMSON B

ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2000*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-21* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

DETAILED ACTION

1.   This office action is in replay to an amendment filed on January 26, 2005.

Claims 1 and 21 have been amended and claims 1-21 are pending in the

application.

Response to Argument

2.   Applicant's remark/arguments filed on January 26, 2005 have been fully

considered but they are not persuasive.

Applicants **amended** the independent claims 1 **and 21**, and added a new

limitation which was not part of the original claims. Applicant amended claim 1

and changed/added the previous limitation. The amended limitation part of

claim 1 is recited as follows , "...transforming means for transforming said

predetermined value based on a formula which is <u>unique to</u> said recording

and/or reproducing apparatus" **and** "control means for controlling storage of

said transformed predetermined value <u>in said management area of said storage</u>

<u>means.</u> "

On the independent claim 21, applicant amended claim 21 and changed/added

the following limitation. The amended limitation part of claim 21 is recited as

follows **" A method for use in a recording and/or reproducing** <u>apparatus</u>

<u>including storage means having a management area and data area, the method</u>

comprising the steps of: " **and** storing said transformed predetermined value <u>in</u>

<u>said management area of said storage means.</u> " .

Applicant's argument has been considered one by one.

Applicant's first argument is regarding the independent claims 1 and 21

Applicant's argument is based on the amended claims and argued that the newly added limitation shown above which is added on the independent claims is not suggested/discussed by **the references** on the record, namely **Takenaka**.

Applicants wrote the following in support of his argument " Looking at Takenaka et al we see that there is no transforming means for transforming the predetermined value based on the a formula which is unique to the apparatus. Takanaka et al is merely encrypting a key generated based on the postional information."

Examiner disagrees with the above argument.

Before the detail response to the argument, Examiner would clarify his interpretation of the recited claims of the applicants with respect to the reference on the record, namely **Takanaka** as follows.

The "storage means" recited by the applicant is interpreted by the office as the storage shown on figure 7, which has a **"management area"** which is interpreted by the office as **the data portion** shown on figure 7 and **the "data area"** which is recited by the applicant is interpreted by the office as the combination of the **"data management portion"** and **the "file-name management portion"** which is also show on figure 7.

"A predetermined value" which is generated by generating means recited by the applicant is interpreted by the office as the **"positional-information"** shown on figure 17, ref. Num "K", which is generated by storage position deciding means as explained on column 1, lines 64-column 2, line 5.

The following response to the applicant argument is based on the Examiner's

interpretation.

In response to the applicant's argument the Examiner would point out that

with respect to the following amended part of limitation of claim recited as

follows. "Transforming means for transforming said predetermined value based

on a formula which is <u>unique to</u> said recording and/or reproducing apparatus"

Takenaka discloses **Transforming means** [Encryption, "using secret key"

shown on figure 17] **for transforming said predetermined value**;[figure 17, ref.

Num "K"] **based on a formula which is <u>unique to</u> said recording and/or**

reproducing apparatus" [figure 17, ref. Num "Secret key"] [See also column

8, lines 65-Column 9, lines 11] (The positional-information item k identifying

the area in which the data should be stored in the data portion which is

interpreted by the office as the **"management area"** is acquired (S62). The

positional-information item k acquired in step S62 is added to the data (the

machine specific information (S63), and information C(k) is then generated

based on the positional-information item k (S64), the secret key is undoubtedly

unique since it produced based on the machine specific information which is

unique since it is generated randomly as explained on column 5, lines 36-42

and positional information which is unique too. Data (DATA+k) into which the

data (the machine specific information) and the positional-information item k

are integrated is encrypted by using the information C(k) as a secret key (S65),

and this secret key is unique as explained above. The encrypted data

Ec(k)(DATA+k) is stored in the area identified by the positional-information item

k **in the data portion** which is interpreted by the office as the **"management**

area" of the storage unit 20 (S66)].

Therefore, the formula or the encryption used for transforming is done by the
secret key shown on figure 17, ref. Num "c(k)" **is unique** to the
recording/reproducing apparatus as explained above.

The next limitation which is added to the limitation is recited as follows
"...storage of transformed predetermined value in said management area of said
storage means" is also disclosed by **Takenaka, since the feature is shown on
figure 17, and** column 9, lines 7-10] (The encrypted data Ec(k)(DATA+k) is
stored in the area identified by the positional-information item k **in the data
portion** which is interpreted by the office as the **"management area"** of the
storage unit 20 (S66)).

Applicant's second argument is again regarding claims 1-21

The argument raised by the applicant is based on the comparison of the
advantages that application provides over the reference on the record, namely
Takenaka.

It is argued by the applicant that the reference on the record, namely Takenaka
et al system offers a weaker copy protection system than the one offered by the
presently claimed invention.

**In response to the above argument by the applicant, the Examiner point
out the following.**

Advantages that could be provided by the invention over the prior art cannot be
read into the claims. In fact, though the advantage of the invention is
implicitly/inherently assumed to be described in the specification by the
applicant, the specification is not the measure of the invention. Therefore,
limitations contained therein/assumed to be contained therein cannot be read
into the claims for the purpose of avoiding the prior art. (See In re Sporck, 55
CCPA 743, 386 F 2d 924, 155 USPQ 687 (1968))

<u>Applicant's third argument is regarding the dependent claims.</u>

Applicants argued that the since the independent claims are patentable

therefore all the claims dependent thereon are also in condition for allowance for

the same reasons argued for the independent claims 1 and 21.

In response to the above argument by the applicant, the examiner response

discussed to the independent claims 1 and 21 mentioned above is also valid

towards this argument.

<u>Applicant last argument is regarding the dependent claims 6, 9-10 and 14,</u>

<u>16-18.</u>

Applicants argued the following "There is no features in the secondary

references used by the examiners namely Koyata for claims 6, 9-10 and Abe et

al, used for claims 14 and 16-18, which somehow could be combined with

Takenaka et al the primary reference on the record and the result is the

presently claimed invention."

Examiner disagrees with the above argument.

In response to the above argument by the applicant, the examiner response

discussed to the independent claims 1 and 21 mentioned above is also valid

towards this argument.

Therefore all the **elements of the limitations of claim 1-21** is explicitly or

implicitly suggested and disclosed by the references on the records.

The rejections remains to be valid unless and otherwise the claims are further

amended to introduce/include some elements of the application with out adding

new matters and that are not taught/described/suggested/disclosed by the

references on the record.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claims 1-5,7-8,12-13,15,19-21** are rejected under 35 U.S.C. 102(e) as being

anticipated by Takenaka el al (hereinafter referred as Takenaka) (U.S. Patent No

5,917,908)

5.   **As per claim 1 and 11,** **Takenaka** discloses a recording and /or reproducing

apparatus comprising:

   •   Storage means having a management area and a data area; (column 5,

   lines 45-54; figure 7, reference "data management portion" and "file-name

   management portion" which together is interpreted by the office as the "data

   area" and "data protion" which is interpreted by the office as the "management

   area")

- Generating means for generating a predetermined value; (Column 1, lines 64- column 2, lines 5; column 5, lines 35-44; figure 17, ref. Num "K")("a positional-information predetermined value decided or generated by the storage position deciding means is interpreted by the office as the a "predetermined value")

- **Transforming means** [Encryption, "using secret key" shown on figure 17] **for transforming said predetermined value;**[figure 17, ref. Num "K"] **based on a formula which is <u>unique to</u> said recording and/or reproducing apparatus" [figure 17, ref. Num "Secret key"]** [See also column 8, lines 65- Column 9, lines 11] (The positional-information item k identifying the area in which the data should be stored in the data portion which is interpreted by the office as the **"management area"** is acquired (S62). The positional-information item k acquired in step S62 is added to the data (the machine specific information (S63), and information C(k) is then generated based on the positional-information item k (S64), the secret key is undoubtedly unique since it produced based machine specific information which is unique since it is generated randomly as explained on column 5, lines 36-42 and positional information which is unique too. Data (DATA+k) into which the data (the machine specific information) and the positional-information item k are integrated is encrypted by using the information C(k) as a secret key (S65), and this secret key is unique as explained above. The encrypted data Ec(k)(DATA+k) is stored in the area identified by the positional-information item k **in the data portion** which is interpreted by the office as the **"management area"** of the storage unit 20 (S66). Therefore, the formula or the encryption used for transforming is done by the secret key shown on figure 17, ref. Num "c(k)" **is unique** to the recording/reproducing apparatus as explained above.] ;

- **Control means for controlling storage** [column 1, lines 64-67] **of said transformed predetermined value in said management area of said storage means.** (Column 1, 64-67; figure 17, and column 9, lines 7-10] (The encrypted data Ec(k)(DATA+k) is stored in the area identified by the positional-information item k **in the data portion** which is interpreted by the office as the **"management area"** of the storage unit 20 (S66)).

6.   **As per claim 21, Takenaka** discloses a method for use in a recording and/or reproducing apparatus including storage means having a management area and data area, (column 5, lines 45-54; figure 7, reference "data management portion" and "file-name management portion" which together is interpreted by the office as the "data area" and "data protion" which is interpreted by the office as the "management area")

The method comprising the steps of:

- Generating a predetermined value; (Column 1, lines 64- column 2, lines 5; column 5, lines 35-44, figure 17, ref. Num "K")("a positional-information predetermined value decided or generated by the storage position deciding means is interpreted by the office as the a "predetermined value")

- **Transforming** [Encryption, "using secret key" shown on figure 17] **for transforming said predetermined value;**[figure 17, ref. Num "K"] **based on a formula which is unique to said recording and/or reproducing apparatus"** **[figure 17, ref. Num "Secret key"]** [See also column 8, lines 65-Column 9, lines 11] (The positional-information item k identifying the area in which the data should be stored in the data portion which is interpreted by the office as the **"management area"** is acquired (S62). The positional-information item k acquired in step S62 is added to the data (the machine specific information (S63), and information C(k) is then generated based on the positional-

information item k (S64), the secret key is undoubtedly unique since it produced based machine specific information which is unique since it is generated randomly as explained on column 5, lines 36-42 and positional information which is unique too. Data (DATA+k) into which the data (the machine specific information) and the positional-information item k are integrated is encrypted by using the information C(k) as a secret key (S65), and this secret key is unique as explained above. The encrypted data Ec(k)(DATA+k) is stored in the area identified by the positional-information item k **in the data portion** which is interpreted by the office as the **"management area"** of the storage unit 20 (S66). Therefore, the formula or the encryption used for transforming is done by the secret key shown on figure 17, ref. Num "c(k)" **is unique** to the recording/reproducing apparatus as explained above.] ;   and

• Storing said transformed predetermined value in said management area of said storage means [Figure "17" and column 9, lines 7-10] (The encrypted data Ec(k)(DATA+k) is stored in the area identified by the positional-information item k **in the data portion** which is interpreted by the office as the **"management area"** of the storage unit 20 (S66)).

7.   **As per claim 2**, **Takenaka** discloses a recording and /or reproducing apparatus as applied to claim 1, above. Furthermore **Takenaka** discloses initializing means for initializing said first storage means so that said storage means has said management area and said data area, wherein said generating means generates said predetermined value when said initialization is performed. (column 5, lines 45-54; figure 7, reference "DATA MANAGEMENT PORTION" and "DATA PORTION"; Column 1, lines 64- column 2, lines 5; column 5, lines 35-44)

8.   **As per claim 3**, **Takenaka** discloses a recording and /or reproducing apparatus as applied to claim 1, above. Furthermore **Takenaka** discloses the apparatus wherein said transforming means mapping-transforms said predetermined value. (Column 1, lines 64- column 2, lines 5; column 5, lines 35-44; figure 6, ref. Num "S116"; Column 5, lines 61- column 6, lines 15 ("a positional-information predetermined value decided or generated by the storage position deciding means is interpreted by the office as the a "predetermined value";

9.   **As per claim 4**, **Takenaka** discloses a recording and /or reproducing apparatus as applied to claim 1, above. Furthermore **Takenaka** discloses the apparatus wherein said control means controls storage of said transformed predetermined value into said management area of said storage means. (Figure 6, ref. Num "S 116" and ref. Num "S 117")

10.   **As per claim 5**, **Takenaka** discloses a recording and /or reproducing apparatus as applied to claim 4, above. Furthermore **Takenaka** discloses the apparatus wherein said storage means comprises first storage means and further comprising:

   •   Second storage means for storing said transformed predetermined value; (Figure 6, ref. Num "S117")

   •   First read-out means for reading-out said transformed predetermined value stored in said management area of said first storage means, (Figure 10)

   •   Inverse-transforming means for inverse-transforming said transformed predetermined value stored in said management area of said first storage means, where an inverse-transform of said inverse-transforming means corresponds to said transform

performed by said transforming means, second read-out means for reading-out said

transformed predetermined value stored in said second storage means, comparing

means for comparing an inverse-transformed value of said inverse-transforming means

with said transformed predetermined value read out from said second read-out means,

and authenticating means for performing authentication based on a comparison result

of said comparing means.(Figure 10, figure 11)

11.   **As per claim 7**, **Takenaka** discloses a recording and / or reproducing apparatus

as applied to claim 5, above. Furthermore **Takenaka** discloses the apparatus wherein

said first read-out means reads out a value stored in said management area when said

first storage means is accessed.(figure 11, ref. Num "S 213")

12.   **As per claim 8** **Takenaka** discloses a recording and / or reproducing apparatus

as applied to claim 1 above. Furthermore **Takenaka** discloses the apparatus wherein

said generating means generates an address based on information from said

management area, and said transforming means transforms said address. (figure 8;

column 5, lines 35-45)

13.   **As per claim 12**, **Takenaka** discloses a recording and / or reproducing

apparatus as applied to claim 5, above. Furthermore **Takenaka** discloses the apparatus

wherein read-out means for reading-out a value from said second storage means; and

inverse-transforming means for inverse-transforming said read-out value, said

inverse-transform corresponding to said transform performed by said transforming

means, wherein said control means controls rearranging said data stored in said First

storage means in said predetermined units according to said inverse-transformed

value.(Figure 10)

14.   **As per claim 13**, **Takenaka** discloses a recording and /or reproducing

apparatus as applied to claim 5, above. Furthermore **Takenaka** discloses the apparatus

wherein said control means controls rearranging said data in units of blocks according

to said predetermined value and storing said rearranged data in said storage means.

(Figure 7)

15.   **As per claim 15**, **Takenaka** discloses a recording and /or reproducing

apparatus as applied to claim 5, above. Furthermore **Takenaka** discloses the apparatus

further comprising: receiving means for receiving data from an external source, wherein

said storage means stores said transformed predetermined value and said control

means controls rearranging said received data in processing units according to said

predetermined value and storing said rearranged data in said storage means.(Figure 8)

16.   **As per claim 19**, **Takenaka** discloses a recording and /or reproducing

apparatus as applied to claim 1, above. Furthermore Takenaka discloses apparatus

wherein said storage means is managed by a file allocation table. (figure 8)

17.   **As per claim 20**, **Takenaka** discloses a recording and /or reproducing

apparatus as applied to claim 1, above. Furthermore **Takenaka** discloses the apparatus

wherein said storage means includes a hard disk. (figure 2, ref. Num "20")

Claim Rejections - 35 USC § 103

18.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19.   **Claims 6,9-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Takenaka el al (hereinafter referred as Takenaka) (U.S. Patent No 5,917,908) in view of

Koyata et al (hereinafter referred to as Koyata) (U.S. Patent No. 6,392,964)

20.   **As per claims 6**, **Takenaka** discloses apparatus according wherein said first

read-out means reads out a value stored in said management area of said first storage

means.(figure 11, ref. Num "S213")

   Takenaka does not explicitly disclose when electric power is supplied to said

recording and/or reproducing apparatus by a user.

   However, in the same field of endeavor, Koyata discloses the apparatus could be

controlled by the battery or electric input/power (figure 1)

   It would have been obvious to one having ordinary skill in the art, at the time

the invention was made, the features of the recording apparatus as per teachings of

Kayata in to the method of as taught by Takenaka, in order to provide the functionality

to reads out data when power is provided.

21.   **As per claims 9**, **Takenaka** discloses

   •   Transforming said predetermined value based on a formula which is

characteristic at every recording and/or reproducing apparatus; (figure 6, ref.

Num "S116"; Column 5, lines 61- column 6, lines 15)   and

   •   Storing said transformed predetermined value (figure 6, ref. Num "S117")

Takenaka does not explicitly disclose searching means for locating an unused area of said data area of said storage means based on information retrieved from said management area of said storage means; logical-link forming means for forming a logical link from a first cluster number corresponding to said unused area, wherein said transforming means transforms said first cluster number and said control means controls storage of said transformed first cluster number and said logical link in said management area of said storage means.

However, in the same field of endeavor, Koyata discloses how data is recorded or reproduced as a cluster and also how a linking sectors are provided for forming a logical link. (column 9, lines 28-column 10, lines 54).

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to combine the searching and logical-link forming method as per teachings of Kayata in to the method of as taught by Takenaka, in order to provide the functionality of store and locate unused area easily and effectively.

22.   **As per claims 10**, the combination of **Takenaka** and Kayata discloses the Apparatus as applied to claim 9 above. Furthermore Kayato discloses the recording/and/or reproducing apparatus comprising: first read-out means for reading-cut said cluster number and said logical link stored in said management area of said storage means; ((column 9, lines 28-column 10, lines 54). And Takenaka discloses

Inverse-transforming means for inverse-transforming said read cluster number, said inverse-transform corresponding to the transform performed by said transforming means; and second read-out means for reading-out data from said data area of said storage means according to said logical link from a first cluster number, said first cluster number being said inverse-transformed cluster number. (figure 10)

23.   **Claims 14,16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Takenaka el al (hereinafter referred as Takenaka) (U.S. Patent No 5,917,908) in view of

Abe et al (hereinafter referred to as Abe) (U.S. Patent No. 6,134,378)

24.   **As per claims 14, 16-18,** **Takenaka** discloses apparatus comprising

read-out means for reading-out a value stored in said storage means; and

inverse-transforming means for inverse-transforming said read-out value, said

inverse-transform corresponding to said transform performed by said transforming

means,(figure 10; figure 11)

Takenaka does not explicitly disclose said control means controls rearranging

said data stored in said storage means in said processing units according to said

inverse-transformed value.

However, in the same field of endeavor, Abe discloses by applying the

desired editing processing, detecting means for detecting the material information

added to the video signal for forming the predetermined control information based on

the material information and the memory means for memorizing the control

information. (column 2, lines 46-57)

It would have been obvious to one having ordinary skill in the art, at the time

the invention was made, to add the features of applying forming the predetermined

control information as per teachings of Abe in to the method of as taught by Takenaka,

in order to store data according to desired arrangement.

Conclusion

25.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Samson B Lemma whose telephone number is 571-272-

3806. The examiner can normally be reached on Monday-Friday (8:00 am---4: 30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone

number for the organization where this application or proceeding is assigned is 703-
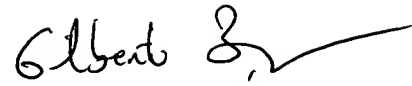
872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

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more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

SAMSON LEMMA

S·L.

04/24/2005

GILBERTO BARRON Jn.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100